What is Claimed is:

1. A task light assembly comprising:

a long elongate flexible fiber optic element having opposite light inlet and light outlet ends;

a light source at the light inlet end of said fiber optic element; and

means for supporting said light source and said light inlet end of said fiber optic element and for allowing movement of said fiber optic element between a storage position with the light outlet end of said fiber optic element supported in a storage position, and an extended use position with the light outlet end of said fiber optic element at a work location remote from said storage position,

said means for supporting said light source and said light inlet end of said fiber optic element and for allowing movement of said fiber optic element between said storage and use positions comprising a reel assembly, said reel assembly;

including a hub, means for supporting said hub on a support member, and a reel rotateably mounted on said hub, said reel having a generally cylindrical periphery with a diameter of at least 12 inches or 30.5 cm, said light source and said light inlet end of said fiber optic element being mounted on said reel assembly, over 80 percent of the length of said fiber optic element being coiled around the periphery of said reel in said storage position, and said reel assembly including

(1) means for biasing said reel for rotation in a first direction during which rotation said fiber optic element can be wound around the periphery of said reel;

(2) means for allowing rotation of said reel in a second direction to unwind said fiber optic element from around the periphery of said reel against said means for biasing; and

(3) releasable retaining means between said hub and said reel for releasably retaining said reel at one of a plurality of locations with respect to said hub in opposition to said means for biasing, said releasable retaining means being engageable and releasable by applying and releasing tension along said fiber optic element.

2. A task light assembly according to claim 1 wherein said generally cylindrical periphery of said reel has a diameter of at least 18 inches or 45.7 cm.

3. A task light assembly according to claim 1 wherein said means for supporting supports said light source and said light inlet end of said fiber optic element on said reel, and said light source is an incandescent or halogen light bulb operated at a voltage of 48 volts or less and a power of at least 50 watts.

4. A task light assembly according to claim 1 wherein said means for supporting supports said light source and said light inlet end of said fiber optic element on said reel, and said light source is an incandescent or halogen light bulb operated at a voltage of 24 volts or less and a power of at least 250 watts.

5. A task light assembly according to claim 1 wherein said means for supporting supports said light source and said light inlet end of said fiber optic element on said reel, and a source of power for said light source is fed through a slip ring assembly mounted on said hub.

6. A task light assembly according to claim 1 wherein said means for supporting supports said light source along the outer surface of a flange for said reel, said reel has openings through which extend a portion of said fiber optic element adjacent said light inlet end from an innermost wrap of said fiber optic element around said peripheral surface to a position along the outer surface of said flange of said reel, and said task light assembly includes connector means for releasably connecting the light inlet end of said fiber optic element on said reel at a predetermined position with respect to said light source.

7. A task light assembly according to claim 6 wherein said means for supporting includes a housing fixed along the outer surface of said flange for said reel, said light source is mounted in said housing, and said connector means for releasably connecting the light inlet end of said fiber optic element on said reel at a predetermined position with respect to said light source includes a portion of said

connector means mounted on said housing, and a portion of said connector means mounted on said fiber optic element adjacent said light inlet end.

8. A task light assembly according to claim 1 wherein said fiber optic element has a diameter in the range of about 10 to 14 mm.

9. A task light assembly according to claim 1 wherein said fiber optic element has a length of at least about 15 feet or 4.5 meters.

10. A task light assembly according to claim 1 further including means at the light outlet end of said fiber optic element for distributing light from the fiber optic element in a predetermined pattern.